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*EXAMINER								G DATE	
•	INITIAL INITIAL	DOCUMENT NUMBER 5,369,289	11/1994	NAME Tamaki	CLASS	SUBCLASS	IF APP	ROPRIATE	
•	YOUR	5,247,533	9/1993	Okazaki et al		 	<u> </u>		
•	1/1/7	4,495,514	1/1985	Lawrence et al			<u> </u>		
•	WIL	5,281,830	1/1994	Kotaki et al					
•	TUTE	4,153,905	5/1979	Charmakadze et al			 		
-	PINC	5,285,078	2/1994	Mimura et al					
-	Ido	0,200,070	21334	i windia et al					
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•			<u></u>	DREIGN PATENT DOCUMENTS			******		
_		DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	YES	SLATION NO	
	PUR	03-218625	9/1991	Japan			abs	T	
_	Pur	05-013812	1/1993	Japan			abs	 	
_	PUR	51-85384	7/1976	Japan			abs	 	
_	Paul	56-81986	7/1981	Japan			abs	 	
_	PUR	61-144659	9/1986	Japan			abs	 	
_	KAIR	63-61161	4/1988	Japan			aps		
_	MAR	61-87381	5/1986	Japan			abs		
_	PLANE	02-229475	9/1990	Japan			abs		
_	RAR	59228776	12/1984	Japan			abs		
_	RMZ	55009442 A	1/1980	Japan			abs		
	RAIR	1990-0701577	7/1990	Korea			abs		
_	PENR	5-211347	8/1993	Japan			abs		
_	12MZ	3-183173	8/1991	Japan			abs		
_	RUZ	4-68579	3/1992	Japan			abs		
_	RNZ	5-129658	5/1993	Japan			abs		
_	RIUZ	57-111076	7/1982	Japan			abs		
_	13MS.	5-13816	1/1993	Japan			abs		
Ċ	2418	62,2675	1/1987	Japan				×	
_	RMR	62-287675	12/1987	Japan			abs		
4	0.00	83103776	4/1994	Toman				X	
_	RUZ	7-45867	2/1995	Japan			abs		
	RAR	5-291621	11/1993	Japan			abs		
_	Pase	5-129658	5/93	Japan			abs		
_	PUR	0 483 688 A3	5/92	Europe					
_	RUR	0 483 688 A2	5/92	Europe					

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	PUR	62-101090	5/94 5/87	Japan		Abs							
	YAMC	10-0225612	7/99	Japan		Abş							
	RMR	2-68968		Kerea		Abs							
	IGMC		3/90	Japan		Abs							
	OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)												
	PUR	Hayes et al Proceedings of Symposium B 1990 Extended Abstracts EA-21 Electronic Optical and Device											
•		Properties of Layered Structures											
	RUR	Amano et al Japanese Journal of Applied Physics Vol. 28 No. 12, 1989 L2112-L2114 P-Type Conduction in Mg-Doped GaN Treated with Low-Energy Electron Beam Irradiation (LEEBI)											
•	0.0	Nakamura et al Jpn J. /	Appl. Phys	. Vol. 31 (1992) pp 1258-1266 Hole	Compensation	Machanisma of D	T						
	RUR	Gain Films Dept. Of Ele	ictrical Eng	Jineering			ype						
_	RUL	Su et al Jpn. J. Applied Physics Vol. 30 No. 5, May 1991 914-916 Ohmic Contacts AuGeNi etc.											
	RUL	Amano et al inst. Phys. Conf. Ser. No. 106; Chapter 10 pp 725-730 LIV and blue electrolyminescence etc.											
		memoirs of the Faculty of Engineering, Nagova University, Vol. 43, No. 2, 1001 Movee Growth of Call etc.											
		Mariams Modern GaAs	Processin	9 Method, 1990 p. 219									
_	RUR	Gan	b. 1994 pp 1003-1005 Low Resista			• .							
_	RUR												
_	RUR	Japanese KOKAI public	ation list o	f patents containing key words "Ni"	and "electrode"								
_	YUL	Goldenberg et al "Ultrav	riolet and v	iolet light-emitting" Appl. Phys. Le	Hs. 62 (1993) 2	25 Jan No 4 no 3	81-383						
-	RAR	Foresi et al "Metal contacts to gallium nitride" Appl. Phys. Letts 62 (1993 31 May No. 22, pp. 2859-2861											
_	RUR	Akasaki et al "High efficiency UV" Proc. of the SPIE, Phys. Concepts of Materials28 Oct. 1990, Aachen, DE, pp 138-149											
_	PUSE	Khan et al "Metal semiconductor field effect" Appl. Phys. Leltts 62 (15), 12 april 1993, pp. 1786-1787											
-	RIR	Nakamura et al "High-power InGan/Gan" Appl. Phys. Letts. 62 (19) 10 May 1993 pp 2390-2392											
_	PEAR	H. Morkoc et al "Large-band-gap SIC," J. Phys. 76(3), 1 Aug.1994 pp 1363-1398											
_	PUR	Patent Abstracts of Japan, vol 18 no 80 (E-1505) 9 Feb 1994 & JP-A-05 291 621 (Nichia Chem Inc Ltd.) 5 Nov. 1993 (see abstract. Patent Abstracts of Japan, vol 18 no 80 (E-1505) 9 Feb 1994 & JP-A-05 291 621 (Nichia Chem Inc Ltd.) 5 Nov. 1993 (see abstract. Patent Abstracts of Japan, vol 18 no 80 (E-1505) 9 Feb 1994 & JP-A-05 291 621 (Nichia Chem Inc Ltd.) 5 Nov. 1993 (see abstract.											
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_	PUR	Database WPI, Week 94 Kagaku Kogyo KK) 23 A	94-308360 & JI	PA 6 237 012 (Nic	hia								
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